## CREATIVE PROCESSING AND DISTRIBUTION

AFRS expected to use short-wave to deliver its programming overseas. The Coordinator of Information's Office and later the Office of War Information had used privately-owned short-wave facilities to carry on its "psychological warfare" or propaganda campaign. Because the radio assets of the U.S. were inadequate when compared with both our Allies and the Axis, Congress appropriated the money needed for an upgrade to new and more powerful transmitters. By the fall of 1942, the OWI had gained control of all such facilities.

Tom Lewis determined during his visit to Alaska in June, 1942, that short-wave could not serve as the medium of delivery in the long term. Nonetheless, AFRS used the OWI facilities for its initial broadcasts.

In turn, the AFRS programming benefited the OWI's own radio propaganda campaign directed toward the Axis. The enemy had a strong interest in what the War and Navy Departments were saying to their fighting men. From broadcasts, he could possibly learn about the character of his opposition and how it might be expected to fight. As a result, he inclined to reduce his "jamming" of OWI programs in order to eavesdrop on their broadcasts.

Until AFRS took over all short-wave operations in September, 1943, it remained a guest of OWI. Coordinating broadcast schedules was a problem. More serious were the technical problems of using shortwave to reach troops in widely scattered areas. Shortwave could carry news, sports, and other real time features with acceptable quality, but its reception always remained subject to weather and atmospheric conditions. AFRS couldn't rely on it to provide regularly-scheduled entertainment programs that required a constant, strong signal. Lewis and his staff had to find another way to broadcast its programs.

## THE "BUDDY KIT"

Major Gordon Hittenmark, a Washington D.C. radio announcer, joined the Morale Services Division in 1941 to develop his idea of a "Buddy Kit" for troops in the field. With a Carnegie Corporation grant of \$100,000, the Morale Services hired Hollywood recording specialist Irving Fogel in January, 1942, to help Hittenmark create the "B-Kit." The completed entertainment package contained a portable long- and short-wave AC/DC battery receiver, batteries, antennas, and tubes. The unit also had a hand-wound 78-to-

33-1/3 RPM turntable with acoustic and electric pickups and a supply of needles. The Army provided 48 current phonograph records and twenty-four 1/2 hour transcriptions of domestic commercial broadcasts. Some of the kits included a microphone and two small speakers to turn it into a public address system. To provide additional leisure-time relaxation, the Army also placed six paperback books and seven harmonicas in the package!

Hardware came off the shelf but the 33-1/3 RPM transcription represented a new development. The radio industry's 16-inch transcription was too large and made of heavy, but fragile shellac. With a second \$400,000 Carnegie grant, Fogel developed a 12-inch, vinylite disk with 156 grooves to the inch that would play for fifteen minutes. The vinylite transcription was light-weight and nearly unbreakable, and it could withstand diverse climatic conditions.

The Radio Section had no funds for obtaining records and transcriptions for inclusion. So, Fogel explained his needs to the World Broadcasting System, a New York transcription production company. Acting as an intermediary for the Army, the company asked the ad agencies and sponsors to include their programs in the "B Kits". There was public relations value in keeping their productions and entertainers before the servicemen and in contributing to the war effort. As a result, the broadcasting industry donated over a million 12-inch transcriptions to the Army. Unlike the AFRS decommercializing of the programs it sent overseas, the transcriptions sent with the "B Kits" were exactly as originally aired.

By the time Lewis became head of AFRS in May, 1942, the Radio Section had produced only a few "B Kits." The Army gave them to units at ports of embarkation. Once in the field, the kits provided their minimal entertainment package only within range of the unit's speakers.

Even so, the B-Kits brought residual benefits to AFRS. Sending programs on disks directly to the troops was one way AFRS could distribute its shows without relying on short-wave or OWI's facilities. While obtaining their transcriptions, Hittenmark and Fogel established excellent lines of contact. They gained access to commercial broadcasters who could provide program material on a much larger and more formal basis.

When Program Production Section had begun to function, Lewis turned his attention to the distribution of his product. Even with its advantages, delivering broadcasting by disk presented some practical problems.

The AFRS Hollywood location didn't have anywhere near the processing and pressing capacity of facilities on the East Coast. Even so, AFRS manufactured the disks in L.A. Several things compensated for any shortcomings in manufacturing locally. First, staffer Irving Fogel, a transferee from the Morale Branch, used his contacts in Hollywood to get them made. Second, manufacturing in L.A.

 Several things compensated for any shortcomings in manufacturing locally. First, staffer Irving Fogel, a transferee from the Morale Branch, used his contacts in Hollywood to get them made. Second, manufacturing in L. A. eliminated any long-distance shipping of the recording masters, which would have been detrimental to the quality of the final pressing. Finally, being close to the manufacturing facilities, AFRS could supervise editing and decommercializing of the shows.

Before World War II, virtually all network radio programs were broadcast live. In order to create a similar schedule in the four time zones, nationwide shows broadcast twice. Local stations used transcriptions for music libraries, commercial announcements and provincial programs, but many of the larger stations had policies forbidding use of any transcribed materials. Only the Mutual Broadcasting System allowed transcriptions to be used in its programming nationally or on its own locally-operated stations. Because live broadcasting was the norm, few manufacturing plants existed to produce transcriptions. The major ones were subsidiaries of phonograph record companies located primarily in New York.

AFRTS faced a major challenge in expanding transcription facilities in the Los Angeles area. They were not alone in making demands on the transcription industry. The Treasury Department, the recruiting organizations, the war information agencies, and many private groups began using transcriptions to reach radio audiences. The Army itself, in its early programs to the troops and in supplying the "B-Kits," added to the demands. Since Lewis had worked on the creative side of broadcasting, he had to rely on Fogel's expertise in setting up the technical aspects of recording the AFRS programs.

Transcribing the programs allowed flexibility for the field stations to broadcast at the hours best suited to the troops in each theater. It provided security control over the material broadcast. Finally, it maintained reception quality without being at the mercy of climatic conditions or atmospheric disturbances. By transcribing shows, AFRS made the best use of talent and was able to give its programs the widest possible distribution.(1)

Vinylite transcriptions had several other advantages. By simply by pressing more disks, AFRS met the needs of the ever-increasing number of stations, vinylite didn't collect dust. That meant a lot in areas such as North Africa and the South Pacific where the coral sand quickly trashed ordinary records. Finally, vinylite recordings provided better reproduction of sound than shellac transcriptions. Besides, war conditions had drastically decreased supplies of shellac.

Lewis and Fogel faced a major task in developing facilities that could meet their needs within the West

Coast's small and overtaxed transcription industry. They used their political influence to help secure necessary building permits and electronic equipment for the transcription industry to expand their facilities. They obtained an A-1 wartime national priority which assured that the necessary materials and personnel to build the facilities and staff the plants would be provided quickly.

With Fogel often away from Hollywood on developmental activities, his deputy, Victor Quan, assumed much of the responsibility for producing transcriptions. Quan, before receiving a direct commission as a Captain in January, 1943, had worked as a chief recording engineer at C.P. MacGregor Studios in Los Angeles.

To serve as recording director for the Technical Production Section, Fogel arranged to transfer Technical Sergeant Edward de la Penna from the Signal Corps to AFRS. Before his induction in November, 1942, de la Penna had helped assemble AFRS programs as an engineer at the Los Angeles Radio Recorders Laboratories.

Neither wire nor tape recording techniques developed sufficiently until after World War II. So, AFRS made all its original recordings by using electronically-motivated needle etchings on acetate disks revolving at 33-1/3 RPM.

AFRS had no studios, recording equipment nor editing facilities. They rented space as needed. For programs such as "Command Performance," "Mail Call," and "Jubilee," performed before live audiences, they booked studios at NBC, CBS and Don Lee-Mutual. In order to capture the sounds of the service audience, they produced parts of "G.I. Journal" at the Hollywood Canteen.

AFRS sent both it's original programs and the recorded domestic shows over telephone lines to commercial recording labs. There, military personnel did the decommercializing and editing. For the most part, the recording procedures used were standard to the transcription industry. They etched the sound tracks onto fifteen-minute recording disks, and used the overlapping system of recording to insure no loss of signal.

Once they recorded a commercial domestic program, the editors went to work using the standard industry "mechanical-electronic" editing process of the industry. The editor listened to the show and wrote down on a work sheet where deletions were to be made. He then re-recorded the program, lifting the recording stylus at the points where the commercials appeared. Editors used the same technique to remove sensitive material such as jokes about strikes, activities of girlfriends, etc.

This process was simple enough, but it created gaps that remained a problem for some time. To deal with it, they tried various plans, including the substitution of background music and informational spots. Despite the apparent desire of the troops to hear the domestic programs with the commercials remaining, AFRS continued to believe the reasons for decommercializing remained valid. In any case, in February, 1943, AFRS created the Domestic Rebroadcast Subsection (DRS). They selected Elliot Lewis, no relation to Tom, a Hollywood radio actor and producer, to head it. In December, 1943, Dresser Dahlstead, also from the Hollywood radio industry, became Lewis' assistant. Together, they developed several techniques to fill the holes created by decommercializing.

Lewis and Dahlstead built a backlog of musical selections played by the orchestra usually heard during the program. For example, they collected a special library of Phil Harris Orchestra music to use on the Jack Benny Show for which Harris regularly played. Introduced by the show's announcer, they'd simply edit in a selection from the library. Often, one selection would fill the complete gap created by decommercializing. Eventually, DRS developed the technique further by having a show's announcer and orchestra cut special tracks that could be inserted. This fit into a program better acoustically than using a track derived from a commercial recording made under recording studio conditions.

The opening and closing of shows caused special problems because a show's sponsor and product were often announced several times. To solve this problem, Lewis had the cast and orchestra of a program record special openings and closings and then substituted them for the domestic segments. The development of these special tracks led to a third technique where editors could produce whole new programs from decommercialized broadcasts. In these programs, like "Front Line Theater," "Globe Theater," and "Mystery Theater," actual drama programming came from domestic broadcasts. The orchestra, announcers and masters of ceremonies cut special opening, closing and linking tracks to fit the material into the AFRS format.

Crucial to the success of substituting special material was the matching of the acoustical qualities of the original with the assembled tracks. Listeners could readily recognize the differences. It was important to create the feeling that the audience was listening to an actual broadcast. So, the DRS recorded its tracks in the same studio as the original program. They even used the same microphone placement whenever possible. Actual quality of the final product depended on the ability of the editor and engineer to combine the various tracks in the least obstructive manner.

The development of AFRS' editing and assembling techniques may well have been their most significant contemporary contribution to the broadcast industry.

The editing techniques themselves were similar to those used in editing motion pictures. Electronic engineers in radio understood the process long before World War II. While they used editing techniques on occasion, they could always re-record a transcribed show containing a flaw. Most of the people who joined AFRS had come from the commercial radio industry. So, it's understandable that they produced its early programs in the same way as the major network shows.

Soon, the Program Production Section began using the editing techniques developed by the DRS in putting together its own programs. By the middle of 1943, AFRS edited most of it's shows down to the correct length from longer recording sessions. "Command Performance," for example, usually ran for 45 to 50 minutes, from which the editors selected the best 30 minutes for the completed show. Entertainers didn't have to rush to complete their performances within the time constraints of live programs. They began to relax, and producers obtained superior performances for their completed program.

After the war, entertainers began urging their civilian producers and networks to do their shows by transcriptions instead of the real time format. Bing Crosby in particular, tried to have his NBC show done on transcription. The network refused to revise its prohibition on transcriptions to accommodate him, so Crosby held off signing a new contract at the end of '45. ABC had no policy against the use of transcribed shows and was trying to strengthen its program schedule. So, in the Fall of '46, Crosby joined ABC and did his show by transcriptions. Most of the other major stars began agitating to do their shows in the same way. By the 1950-51 season, most of the major shows were using this technique.

Once AFRS had completed a show's transcription, the disk had to be processed into a master used to stamp out the records. The electroplating process used in the industry for many years was a time-consuming process. By April, of 1945, AFRS had helped to develop a high-speed system which cut the processing time in about half. As a result, AFRS could release special events shows soon after their occurrence.

The final step in the process was the stamping of the records. The only real question was the manner in which a show would be put on a disk. Early on, AFRS pressed transcriptions so that the first half of one program would be on the first record, and the second half on another. They recorded another show on the flip sides. When using two turntables, this format enabled the broadcasting engineer to go from one record to the other with no gap. However, if he lost one of the two records, or if a record got damaged enroute, he'd effectively lose two shows instead of one. So, beginning in May, 1943, AFRS pressed all its shows back to back on a single record.

This decision simplified distribution and production and the method remained in effect throughout the remainder of the war.

Since AFRS faced great difficulties in replacing defective transcriptions, it established careful inspection procedures throughout the production process, however, this AFRS operation was little different from what the industry had been doing before the war.

But, all that would change. Read on.

## NOTES - CHAPTER 8

(1) Thomas Lewis, JANC Radio Subcommittee 1944 Report, January 20, 1944, p 35.